

SEBR-40 SERIES
Horizontal Mount Vertical Airflow Down

Application and Design

The SEBR-40 series is a severe environment 316 stainless steel eccentrically pivoted backdraft damper for low velocity systems. SEBR-40 series is a horizontally mounted damper and designed to allow vertical airflow down and prevent reverse airflow. On-blade counterweights are provided to fine tune start-to-open and full open blade operation. Ball bearings minimize friction.

Recommended Applications:

- Gravity hood intake and exhaust
- Stairwell pressurization
- Room pressurization
- Ductwork outlets

Poor Applications:

- Propeller fan outlets (high velocity)
- Centrifugal fan outlets (high velocity)
- Building pressurization (sensitive to wind)
- Pressure relief exceeding 0.13 in. wg (32 Pa)

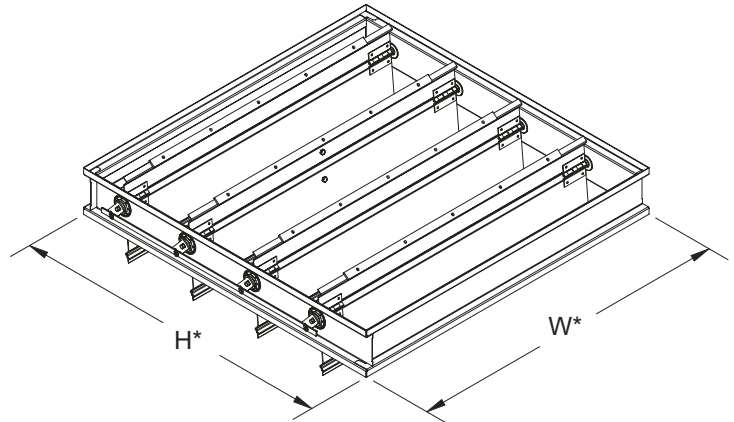
Ratings

Back Pressure: 2.0 in. wg (500 Pa)

Start-to-Open Pressure: 0.05 in. wg (12 Pa)

Velocity: 2000 fpm (10.2m/s)

Temperature: 180°F (82°C)



Standard Construction

Frame: Insert mount 16 ga. (1.5mm) 316 stainless steel hat channel

Blades: 20 ga. (1mm) 316 stainless steel, eccentrically pivoted

Axles: 3/8 in. (9.5mm) square 316 stainless steel

Bearings: 316 stainless steel with acetal races

Linkage: 316 stainless steel, side mounted (out of airstream)

Blade Seals: Pressure activated vinyl

Counterbalance: Blade mounted with adjustable 316 stainless steel weights

*W & H dimensions furnished approximately 1/4 in. (6mm) under size.

Size Limitations

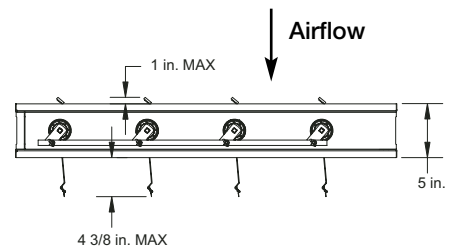
Minimum Size: 8 in. W x 6 in. H
(203mm x 152mm)

Maximum Panel Size: 48 in. W x 74 in. H
(1220mm x 1880mm)

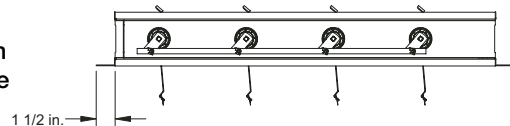
Options

- EPDM segmented jamb seals
- Selectable start open from .05 to .13 in. wg (12 Pa - 32 Pa)

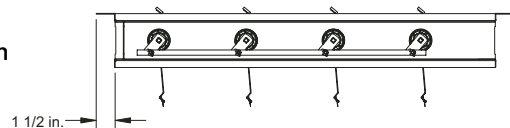
SEBR-40
No flange



SEBR-41
Flange on Discharge



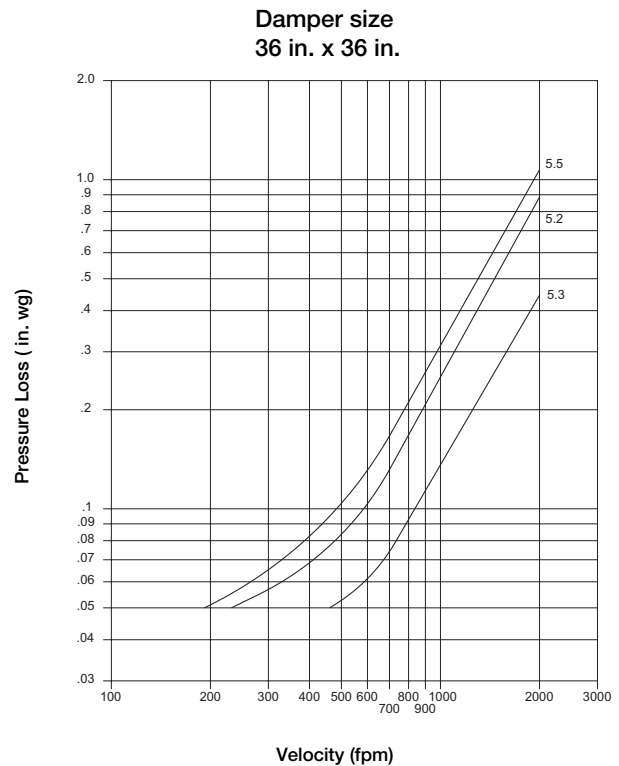
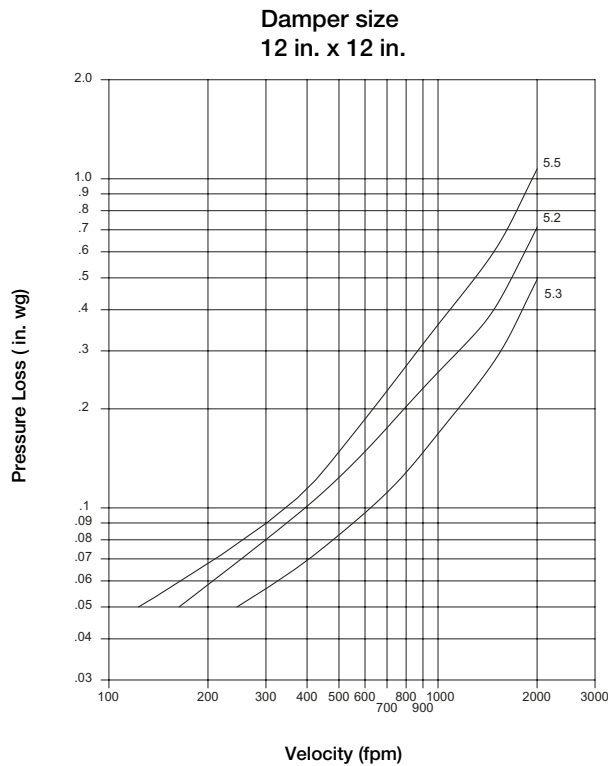
SEBR-42
Flange on Intake



PERFORMANCE DATA

SEBR-40 SERIES

Performance data results from testing a 12 in. x 12 in. and 36 in. x 36 in. damper in accordance with AMCA Standard 500D using Figure 5.3 (fully ducted), 5.2 (ducted exhausting into an open area), and 5.5 (plenum mounted). All data has been corrected to represent standard air density at 0.075 lb/ft³ (1.201 kg/m³).



Specifications

Barometric backdraft dampers meeting the following specifications shall be furnished and installed where shown on plans and/or as described in schedules.

Dampers shall consist of: 16 ga. (1.5mm) insert mount 316 stainless steel hat channel frame with 5 in. (127mm) depth; blades will be 20 ga. (1mm) 316 stainless steel, eccentrically pivoted; 3/8 in. (9.5mm) square 316 stainless steel axles with 316 stainless steel bearings with acetal races; damper shall be equipped with pressure activated vinyl blade seals; and internal 316 stainless steel blade-to-blade linkage side mounted (out of airstream) with blade mounted 316 stainless steel counterbalance weights.

Damper manufacturer's printed application and performance data including pressure, velocity and temperature limitations shall be submitted for approval showing damper suitable for pressures to 2 in. wg (500 Pa), velocities to 2000 fpm (10.2m/s) and temperatures to 180°F (82°C). Testing and ratings to be in accordance with AMCA Standard 500D.

Basis of design is Greenheck model SEBR-40 series.



SEBR-40 series
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